

REMARKS

In order to expedite prosecution, claim 1 has been amended to incorporate the limitation of claim 6 which has in turn been canceled. Accordingly, it is respectfully requested that the amendment be entered as a matter of right, as it does not raise any new issues that would require further consideration and/or search (i.e., claim 1 as amended has already been fully considered and examined as previous claim 6) and would reduce issues on appeal.

Claim 1 as amended stands rejected under 35 U.S.C. § 102 as being anticipated by Lee. This rejection is respectfully traversed for the following reasons.

Claim 1 recites in pertinent part, “a first step of implanting ... first dopant ions of a first conductivity type which are indium ions to form a dopant implantation layer ...; [and] a second step of implanting second dopant ions ... *to form an amorphous layer* expanding from the substrate surface to a region of the substrate *deeper than the dopant implantation layer*” (emphasis added). The Examiner relies on paragraph [0042] of Lee as allegedly disclosing the implanting of indium ions.

The Examiner then relies on paragraphs [0050-0051] as allegedly disclosing the implanting of ions to form an amorphous layer; however, as expressly disclosed by Lee in the relied on paragraphs 50-51, “[t]he conditions used in this preamorphization step are sufficient to implant [the ions to form the amorphous layer] to a depth ... *less than the depth of the [indium] ion.*” Accordingly, Lee does not disclose or suggest, *inter alia*, “implanting second dopant ions ... to form an amorphous layer expanding from the substrate surface to a region of the substrate *deeper* than the dopant implantation layer.” In direct contrast, Lee discloses implanting the alleged second dopant ions to form an amorphous layer extending *shallower* than the dopant implantation layer.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Lee does not anticipate claim 1, nor any claim dependent thereon.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. § 102/103 be withdrawn.

CONCLUSION

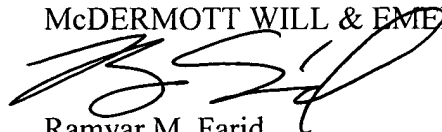
Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

Application No.: 10/676,877

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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